

Agriculture, Food, and Natural Resources

Total Participants

Over the eight month standards revision process, the Department involved:

- **Over 100 Agriculture teachers** and CTE Directors
- Nearly **70 Agriculture stakeholders**, including meetings with Tennessee Farm Bureau, Department of Agriculture, and Agriculture Leaders Forum

Results

All courses in the Agriculture, Food, and Natural Resources career cluster were critically evaluated and revised. The result of this effort includes the following proposed changes:

Course Changes		
New Courses	7	Added new courses in food science, large animal science, environmental science and plant science.
Revised Courses	14	
Replaced Courses	16	Courses that were identified as too specific or included outdated information were replaced. Quality standards from these courses were embedded into revisions of remaining courses.
Program of Study Changes		
New Programs of Study	1	Food Science
Retired Programs of Study	4	Removed programs that were too general or were duplicative.
Revised Programs of Study	5	Increased science concepts in Environmental Science and Ag Engineering, increased business concepts in Ag Business, and updated animal science and horticulture programs with new courses.

Review Process: Research, Data Gathering, and Reviewers

Throughout the data gathering phase of the review, the Agriculture consultant referenced the following:

State Departments of Education Course Materials	<ul style="list-style-type: none">• Georgia• Florida• Oklahoma	<ul style="list-style-type: none">• Colorado• Michigan• Wisconsin	<ul style="list-style-type: none">• North Carolina• Indiana• California
Special Courses Submitted by LEAs	<ul style="list-style-type: none">• Carter County	<ul style="list-style-type: none">• Johnson County	<ul style="list-style-type: none">• Madison County
National Industry Standards	National Agriculture, Food and Natural Resource (AFNR) Career Cluster Content Standards, National Council for Agricultural Education		
Business and Industry	AFNR Advisory Council recommendations, including specific comments from: <ul style="list-style-type: none">• Tennessee Farm Bureau• Horticulture & Pest Control Manager, Gaylord Opryland Hotel• Dairy Farmers of America• Tennessee Wildlife Resource Agency (TWRA)		
Department of Education, C&I Division	<ul style="list-style-type: none">• Agriscience• Applied Environmental Science	<ul style="list-style-type: none">• Veterinary Science• Agricultural Business & Finance	

National Postsecondary Programs	<u>Top 10 National Universities, based on Subject Area</u> <ul style="list-style-type: none"> California Polytechnic at Pomona Cornell University Iowa State University Kansas State University Michigan State University North Carolina State University Oklahoma State University Penn State University Purdue University Texas A & M University The Ohio State University University of Florida University of Georgia University of Illinois – Urbana-Champaign University of Massachusetts – Amherst University of Wisconsin – Madison
	<u>Tennessee Universities</u> <ul style="list-style-type: none"> Middle Tennessee State University Tennessee State University Tennessee Tech University University of Tennessee – Knoxville University of Tennessee – Martin
Tennessee Postsecondary Programs	<u>Tennessee Community Colleges</u> <ul style="list-style-type: none"> Jackson State Community College Roane State Community College Volunteer State Community College Walters State Community College
Tennessee Educators	<ol style="list-style-type: none"> CTE Directors Survey – 2012 <ul style="list-style-type: none"> 95 responses CTE Teachers Survey – 2013 <ul style="list-style-type: none"> 50 Agriculture Teacher responses (~15% response rate) Experienced, Effective CTE Teacher Reviewers <ul style="list-style-type: none"> 43 teachers identified, 29 responded (67% response rate) Included dual credit professors, certified veterinary technician, and Dow AgroSciences-recognized educator East (32%), Middle (43%), West (25%) Average years of experience: 13

Meetings and Webinars

The following events to engage educators were conducted prior to the board reading:

External Stakeholders	Tennessee Department of Agriculture	2 Stakeholders
	Tennessee Farm Bureau	10 Stakeholders
	Agriculture in the Classroom Advisory Committee	50 Stakeholders
	Tennessee Agriculture Leaders Forum	6 Stakeholders
Educator Groups	Team “Ag Ed” (includes teacher preparation programs)	9 Teachers
	Tennessee Association of Agriculture Educators (TAAE)	5 Teachers
	Educator visits and calls (Oakland, Roane County, McMinn County, State Fair)	11 Teachers and CTE Directors